

| L Number | Hits | Search Text | DB | Time stamp |
|----------|--------|---|-------|------------------|
| 1 | 22 | (expert near system) and ((query or index or database or (data adj base)) near (optimizer or optimization or tuner)) | USPAT | 2002/11/22 10:05 |
| 2 | 35 | (expert near system) and ((query or index or database or (data adj base)) near (optimizer or optimization or tuner)) | USPAT | 2002/11/22 10:06 |
| 4 | 13 | ((expert near system) and ((query or index or database or (data adj base)) near (optimizer or optimization or tuner))) not ((expert near system) and ((query or index or database or (data adj base)) near (optimizer or optimization or tuner))) | USPAT | 2002/11/22 10:06 |
| - | 25917 | (baseline near statistics) or baseline or (index near (disabled or off)) or unindexed or ("not" adj indexed) | USPAT | 2002/11/15 11:51 |
| - | 46 | ((707/2 or 707/3 or 707/4).ccls.) and ((baseline near statistics) or baseline or (index near (disabled or off)) or unindexed or ("not" adj indexed)) | USPAT | 2002/11/15 11:51 |
| - | 826409 | (database or (data adj base) or dbase or db or table) | USPAT | 2002/11/15 11:52 |
| - | 3 | index near superset | USPAT | 2002/11/15 11:53 |
| - | 3 | index near ((super adj set) or superset) | USPAT | 2002/11/15 11:54 |
| - | 45 | ((707/2 or 707/3 or 707/4).ccls.) and ((baseline near statistics) or baseline or (index near (disabled or off)) or unindexed or ("not" adj indexed)) and ((database or (data adj base) or dbase or db or table)) | USPAT | 2002/11/15 11:55 |

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|---|--------|---|-------|------------------|
| - | 49 | ("5960423" "6356890" "6356891" "6366903" "6351742" "6370522" "6182079" "6122644" "5913206" "5913207" "5926813" "5950186" "6356889" "6195653" "5619692" "6266658" "5903890" "5852821" "6405187" "6442539" "6105020" "6006219" "6173278" "5577249" "5495608" "5694591" "5710915" "5845278" "5983216" "6018733" "6173281" "5978800" "6105033" "6360228" "5222235" "5465352" "5625813" "5822748" "5881379" "5903888" "5933820" "6067540" "6144957" "6195656" "6240407" "6326962" "5469354" "5381158" "5745894").pn. | USPAT | 2002/11/18 12:35 |
| - | 137382 | (database or (data adj base) or dbase or db) | USPAT | 2002/11/18 12:38 |
| - | 2829 | ((identif\$4 or creat\$3 or establish\$3 or mak\$3 or buil\$4 or setting or set\$1) near index) and ((database or (data adj base) or dbase or db)) | USPAT | 2002/11/18 12:48 |
| - | 3906 | (707/2 or 707/3 or 707/101 or 707/102).ccls. | USPAT | 2002/11/18 12:48 |
| - | 1 | 6321218.pn. | USPAT | 2002/11/18 14:03 |
| - | 634 | ((((identif\$4 or creat\$3 or establish\$3 or mak\$3 or buil\$4 or setting or set\$1) near index) and ((database or (data adj base) or dbase or db))) and ((707/2 or 707/3 or 707/101 or 707/102).ccls.) | USPAT | 2002/11/18 17:37 |
| - | 6387 | (disabl\$3 or remov\$3 or (turn\$3 near off) or disregard\$3) near (index\$2 or constraint\$1 or key\$1) | USPAT | 2002/11/18 17:39 |

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|---|-------|--|-------|------------------|
| - | 25 | (((((identif\$4 or creat\$3 or establish\$3 or mak\$3 or buil\$4 or setting or set\$1) near index) and ((database or (data adj base) or dbase or db))) and ((707/2 or 707/3 or 707/101 or 707/102).ccls.)) and ((disabl\$3 or remov\$3 or (turn\$3 near off) or disregard\$3) near (index\$2 or constraint\$1 or key\$1)) | USPAT | 2002/11/18 17:39 |
| - | 36 | disabl\$3 near (indexes or index) | USPAT | 2002/11/19 08:21 |
| - | 2962 | (707/2 or 707/3 or 707/4).ccls. | USPAT | 2002/11/19 08:21 |
| - | 0 | (disabl\$3 near (indexes or index)) and ((707/2 or 707/3 or 707/4).ccls.) | USPAT | 2002/11/19 08:22 |
| - | 1 | (disabl\$3 near (indexes or index)) and (707/\$).ccls. | USPAT | 2002/11/19 08:22 |
| - | 1 | 6266658.URPN. | USPAT | 2002/11/19 10:37 |
| - | 7 | ("5913206" "5913207" "5926813" "5950186" "5960423" "6029163" "6105019").PN. | USPAT | 2002/11/19 10:37 |
| - | 1 | 6266658.URPN. | USPAT | 2002/11/19 10:41 |
| - | 12 | ("5897632" "5913206" "5913207" "5926813" "5950186" "5960423" "5991754" "6026390" "6266658" "6134543" "6129983" "6223171").PN. | USPAT | 2002/11/19 10:42 |
| - | 19258 | (query or querying or statement or execution) and (cpu or (processing near unit) or processor) and ((input near output) or (i near o)) | USPAT | 2002/11/19 16:21 |
| - | 599 | (cost or statistics) near (cpu or processor or (processing near unit) or (i near o) or (input near output)) | USPAT | 2002/11/19 16:22 |
| - | 123 | ((query or querying or statement or execution) and (cpu or (processing near unit) or processor) and ((input near output) or (i near o))) and ((cost or statistics) near (cpu or processor or (processing near unit) or (i near o) or (input near output))) | USPAT | 2002/11/19 16:22 |
| - | 6 | ((query or querying or statement or execution) and (cpu or (processing near unit) or processor) and ((input near output) or (i near o))) and ((cost or statistics) near (cpu or processor or (processing near unit) or (i near o) or (input near output)))) and (707/\$).ccls. | USPAT | 2002/11/19 16:23 |
| - | 35 | (remov\$3 or elimat\$3 or delet\$3 or reduc\$4) with ((duplicate or "same" or repeated or multiple) near (statements or queries)) | USPAT | 2002/11/20 09:59 |
| - | 93 | reduced near workload | USPAT | 2002/11/20 09:59 |
| - | 128 | ((remov\$3 or elimat\$3 or delet\$3 or reduc\$4) with ((duplicate or "same" or repeated or multiple) near (statements or queries))) or (reduced near workload) | USPAT | 2002/11/20 09:59 |
| - | 23 | ((remov\$3 or elimat\$3 or delet\$3 or reduc\$4) with ((duplicate or "same" or repeated or multiple) near (statements or queries))) or (reduced near workload)) and (707/\$).ccls. | USPAT | 2002/11/20 10:00 |
| - | 77 | user near defined near constraints | USPAT | 2002/11/20 13:05 |
| - | 6 | (user near defined near constraints) and (707/\$).ccls. | USPAT | 2002/11/20 13:06 |
| - | 83644 | constraints | USPAT | 2002/11/20 13:06 |
| - | 3000 | user with constraints | USPAT | 2002/11/20 13:27 |
| - | 449 | (user with constraints) and (707/\$).ccls. | USPAT | 2002/11/20 13:27 |
| - | 200 | ((user with constraints) and (707/\$).ccls.) and (database and index) | USPAT | 2002/11/20 13:27 |
| - | 7345 | user with (rules or constraints) | USPAT | 2002/11/20 13:27 |
| - | 1265 | (user with (rules or constraints)) and (database and index) | USPAT | 2002/11/20 13:27 |
| - | 515 | ((user with (rules or constraints)) and (database and index)) and (707/\$).ccls. | USPAT | 2002/11/20 13:28 |

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|---|--------|---|-------|------------------|
| - | 7467 | (index near (tune\$1 or tuning or build\$3 or identif\$4 or set\$3 or creat\$3 or mak\$3)) | USPAT | 2002/11/20 13:31 |
| - | 129 | ((user with (rules or constraints)) and (database and index)) and (707/\$).ccls.) and ((index near (tune\$1 or tuning or build\$3 or identif\$4 or set\$3 or creat\$3 or mak\$3))) | USPAT | 2002/11/20 15:27 |
| - | 220255 | (constraint or limit or maximum or minimum) same (storage or memory or space or (hard near drive) or (number near indexes)) | USPAT | 2002/11/20 13:34 |
| - | 66 | ((user with (rules or constraints)) and (database and index)) and (707/\$).ccls.) and ((index near (tune\$1 or tuning or build\$3 or identif\$4 or set\$3 or creat\$3 or mak\$3))) and ((constraint or limit or maximum or minimum) same (storage or memory or space or (hard near drive) or (number near indexes))) | USPAT | 2002/11/20 13:34 |
| - | 63 | ((user with (rules or constraints)) and (database and index)) and (707/\$).ccls.) and ((index near (tune\$1 or tuning or build\$3 or identif\$4 or set\$3 or creat\$3 or mak\$3))) not (((user with (rules or constraints)) and (database and index)) and (707/\$).ccls.) and ((index near (tune\$1 or tuning or build\$3 or identif\$4 or set\$3 or creat\$3 or mak\$3))) and ((constraint or limit or maximum or minimum) same (storage or memory or space or (hard near drive) or (number near indexes)))) | USPAT | 2002/11/20 15:27 |
| - | 546 | (index or database or (data adj base)) near (tuning or tuner or optimization or optimiz\$3) | USPAT | 2002/11/20 15:28 |
| - | 260 | ((index or database or (data adj base)) near (tuning or tuner or optimization or optimiz\$3)) and (707/\$).ccls. | USPAT | 2002/11/20 15:28 |
| - | 55 | ((index or database or (data adj base)) near (tuning or tuner or optimization or optimiz\$3)) and (707/\$).ccls.) and (user near defined) | USPAT | 2002/11/20 15:31 |
| - | 1711 | (reduc\$4 or eliminat\$3 or remov\$3 or ignor\$3 or disregard\$3) same (duplicate or repeated or "same" or redundant) same (queries or statements) | USPAT | 2002/11/20 16:12 |
| - | 62 | ((index or database or (data adj base)) near (tuning or tuner or optimization or optimiz\$3)) and (707/\$).ccls.) and ((reduc\$4 or eliminat\$3 or remov\$3 or ignor\$3 or disregard\$3) same (duplicate or repeated or "same" or redundant) same (queries or statements)) | USPAT | 2002/11/20 15:34 |
| - | 7 | ((index or database or (data adj base)) near (tuning or tuner or optimization or optimiz\$3)) and (707/\$).ccls.) and (user near defined)) and ((reduc\$4 or eliminat\$3 or remov\$3 or ignor\$3 or disregard\$3) same (duplicate or repeated or "same" or redundant) same (queries or statements)) | USPAT | 2002/11/20 16:32 |
| - | 1929 | (number or count) same (executions or runs) same (queries or statements) | USPAT | 2002/11/20 16:13 |
| - | 75 | ((index or database or (data adj base)) near (tuning or tuner or optimization or optimiz\$3)) and (707/\$).ccls.) and ((number or count) same (executions or runs) same (queries or statements)) | USPAT | 2002/11/20 16:13 |

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|---|--------|--|-------|------------------|
| - | 21 | (((index or database or (data adj base)) near (tuning or tuner or optimization or optimiz\$3)) and (707/\$).ccls.) and ((number or count) same (executions or runs) same (queries or statements))) and (((index or database or (data adj base)) near (tuning or tuner or optimization or optimiz\$3)) and (707/\$).ccls.) and (user near defined)) | USPAT | 2002/11/20 16:13 |
| - | 1 | 6003022.pn. | USPAT | 2002/11/20 16:28 |
| - | 117 | ((importance or ranking or weight) near (statement or query) | USPAT | 2002/11/20 16:35 |
| - | 3 | (((index or database or (data adj base)) near (tuning or tuner or optimization or optimiz\$3)) and (707/\$).ccls.) and (user near defined)) and ((importance or ranking or weight) near (statement or query)) | USPAT | 2002/11/20 16:38 |
| - | 73 | ((importance or ranking or weight) near (statement or query)) and (707/\$).ccls. | USPAT | 2002/11/20 16:40 |
| - | 33467 | (user near (defined or specified or set or established or ranked)) | USPAT | 2002/11/20 16:41 |
| - | 35 | ((importance or ranking or weight) near (statement or query)) and (707/\$).ccls.) and ((user near (defined or specified or set or established or ranked))) | USPAT | 2002/11/20 17:54 |
| - | 884 | 707/5.ccls. | USPAT | 2002/11/20 17:55 |
| - | 55 | (user near (defined or proposed) near index) | USPAT | 2002/11/20 18:23 |
| - | 4 | ((user near (defined or proposed) near index)) and 707/5.ccls. | USPAT | 2002/11/20 17:56 |
| - | 5 | ("5544355" "5598559" "5644763" "5806057" "5822749").PN. | USPAT | 2002/11/20 18:21 |
| - | 5 | 707/5.ccls. and ((user or administrator or dba) near (defined or proposed or creat\$3 or mak\$3 or generat\$3 or identif\$4) near index)) | USPAT | 2002/11/20 18:25 |
| - | 99 | ((user or administrator or dba) near (defined or proposed or creat\$3 or mak\$3 or generat\$3 or identif\$4) near index) | USPAT | 2002/11/20 18:32 |
| - | 9 | ((index or database or (data adj base)) near (tuning or tuner or optimization or optimiz\$3)) and (((user or administrator or dba) near (defined or proposed or creat\$3 or mak\$3 or generat\$3 or identif\$4) near index)) | USPAT | 2002/11/20 18:32 |
| - | 117432 | (memory or storage) with (constraint or requirements or limit\$3 or defined) | USPAT | 2002/11/21 08:48 |
| - | 13014 | (707/\$).ccls. | USPAT | 2002/11/21 08:48 |
| - | 8134 | (identif\$4 or creat\$3 or establish\$3 or mak\$3 or buil\$4 or setting or set\$1) near index | USPAT | 2002/11/21 08:49 |
| - | 3937 | ((memory or storage) with (constraint or requirements or limit\$3 or defined)) and ((707/\$).ccls.) | USPAT | 2002/11/21 08:49 |
| - | 501 | ((memory or storage) with (constraint or requirements or limit\$3 or defined)) and ((707/\$).ccls.) and ((identif\$4 or creat\$3 or establish\$3 or mak\$3 or buil\$4 or setting or set\$1) near index) | USPAT | 2002/11/21 08:49 |
| - | 33202 | (user or administrator) near (set\$1 or setting or defined or defin\$3 or establish\$3 or limit\$3) | USPAT | 2002/11/21 11:10 |
| - | 546 | (index or database or (data adj base)) near (tuner or tuning or optimiz\$3 or optimization) | USPAT | 2002/11/21 08:52 |

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|---|-------|--|-------|------------------|
| - | 158 | ((memory or storage) with (constraint or requirements or limit\$3 or defined)) and ((707/\$).ccls.) and ((identif\$4 or creat\$3 or establish\$3 or mak\$3 or buil\$4 or setting or set\$1) near index)) and ((user or administrator) near (set\$1 or setting or defined or defin\$3 or establish\$3 or limit\$3)) | USPAT | 2002/11/21 08:52 |
| - | 11 | ((index or database or (data adj base)) near (tuner or tuning or optimiz\$3 or optimization)) and (((memory or storage) with (constraint or requirements or limit\$3 or defined)) and ((707/\$).ccls.) and ((identif\$4 or creat\$3 or establish\$3 or mak\$3 or buil\$4 or setting or set\$1) near index)) and ((user or administrator) near (set\$1 or setting or defined or defin\$3 or establish\$3 or limit\$3))) | USPAT | 2002/11/21 10:33 |
| - | 322 | memory with (index near (select\$3 or optimiz\$3 or optimization or remov\$3 or choos\$3 or chose\$1 or creat\$3 or build\$3 or mak\$3 or tun\$3)) | USPAT | 2002/11/21 10:39 |
| - | 76 | ((707/\$).ccls.) and (memory with (index near (select\$3 or optimiz\$3 or optimization or remov\$3 or choos\$3 or chose\$1 or creat\$3 or build\$3 or mak\$3 or tun\$3))) | USPAT | 2002/11/21 10:37 |
| - | 485 | (storage or memory) with (index near (select\$3 or optimiz\$3 or optimization or remov\$3 or choos\$3 or chose\$1 or creat\$3 or build\$3 or mak\$3 or tun\$3)) | USPAT | 2002/11/21 10:40 |
| - | 135 | ((707/\$).ccls.) and ((storage or memory) with (index near (select\$3 or optimiz\$3 or optimization or remov\$3 or choos\$3 or chose\$1 or creat\$3 or build\$3 or mak\$3 or tun\$3))) | USPAT | 2002/11/21 10:41 |
| - | 48737 | (user or administrator) with (constraints or rules or guides or restrictions or limit\$3) | USPAT | 2002/11/21 11:25 |
| - | 3712 | ((707/\$).ccls.) and ((user or administrator) with (constraints or rules or guides or restrictions or limit\$3)) | USPAT | 2002/11/21 11:10 |
| - | 84 | ((user or administrator) near (set\$1 or setting or defined or defin\$3 or establish\$3 or limit\$3)) and ((index or database or (data adj base)) near (tuner or tuning or optimiz\$3 or optimization)) and ((707/\$).ccls.) | USPAT | 2002/11/21 11:11 |
| - | 360 | (user or administrator) with (constraints or rules or guides or restrictions or limit\$3) with (index) | USPAT | 2002/11/21 11:26 |
| - | 104 | ((707/\$).ccls.) and ((user or administrator) with (constraints or rules or guides or restrictions or limit\$3) with (index)) | USPAT | 2002/11/21 11:26 |
| - | 1284 | (limit\$3 or remov\$3 or eliminat\$3 or delet\$3) near index | USPAT | 2002/11/21 11:27 |
| - | 13 | ((707/\$).ccls.) and ((user or administrator) with (constraints or rules or guides or restrictions or limit\$3) with (index)) and ((limit\$3 or remov\$3 or eliminat\$3 or delet\$3) near index) | USPAT | 2002/11/21 11:27 |
| - | 173 | (small near table) and constraint | USPAT | 2002/11/21 11:58 |
| - | 33 | ((707/\$).ccls.) and ((small near table) and constraint) | USPAT | 2002/11/21 12:42 |
| - | 11 | ((707/\$).ccls.) and ((small near table) and constraint)) and ((identif\$4 or creat\$3 or establish\$3 or mak\$3 or buil\$4 or setting or set\$1) near index) | USPAT | 2002/11/21 12:51 |

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|---|-------|--|-------|------------------|
| - | 1299 | ((707/\$).ccls.) and ((identif\$4 or creat\$3 or establish\$3 or mak\$3 or buil\$4 or setting or set\$1) near index) | USPAT | 2002/11/21 12:52 |
| - | 86932 | (table or database or (data adj base)) with (size or small or low or insignificant) | USPAT | 2002/11/21 12:54 |
| - | 538 | ((707/\$).ccls.) and ((identif\$4 or creat\$3 or establish\$3 or mak\$3 or buil\$4 or setting or set\$1) near index)) and ((table or database or (data adj base)) with (size or small or low or insignificant)) | USPAT | 2002/11/21 12:54 |
| - | 17 | (US-6021405-\$ or US-5819255-\$ or US-6356889-\$ or US-6266658-\$ or US-6356891-\$ or US-6182079-\$ or US-6240407-\$ or US-5926813-\$ or US-5913207-\$ or US-5913206-\$ or US-5710915-\$ or US-6338055-\$ or US-6223171-\$ or US-5924088-\$ or US-5860136-\$ or US-6105019-\$ or US-6363371-\$).did. | USPAT | 2002/11/21 17:31 |
| - | 4332 | (small or size) near (table or database or (data adj base)) | USPAT | 2002/11/21 17:32 |
| - | 9 | ((US-6021405-\$ or US-5819255-\$ or US-6356889-\$ or US-6266658-\$ or US-6356891-\$ or US-6182079-\$ or US-6240407-\$ or US-5926813-\$ or US-5913207-\$ or US-5913206-\$ or US-5710915-\$ or US-6338055-\$ or US-6223171-\$ or US-5924088-\$ or US-5860136-\$ or US-6105019-\$ or US-6363371-\$).did.) and ((small or size) near (table or database or (data adj base))) | USPAT | 2002/11/21 17:44 |
| - | 4 | (integrity near constraint) and ((US-6021405-\$ or US-5819255-\$ or US-6356889-\$ or US-6266658-\$ or US-6356891-\$ or US-6182079-\$ or US-6240407-\$ or US-5926813-\$ or US-5913207-\$ or US-5913206-\$ or US-5710915-\$ or US-6338055-\$ or US-6223171-\$ or US-5924088-\$ or US-5860136-\$ or US-6105019-\$ or US-6363371-\$).did.) | USPAT | 2002/11/22 08:45 |



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21 XAL: an algebra for XML query optimization

100%



Flavius Frasinicar , Geert-Jan Houben , Cristian Pau

Australian Computer Science Communications , Proceedings of the thirteenth Australasian conference on Database technologies - Volume 5 January 2002
Volume 24 Issue 2

This paper proposes XAL, an XML ALgebra. Its novelty is based on the simplicity of its data model and its well-defined logical operators, which makes it suitable for *composability*, *optimizability*, and *semantics definition* of a query language for XML data. At the heart of the algebra resides the notion of *collection*, a concept similar to the mathematician's monad or functional programmer's comprehension. The operators are classified in three clusters: *extraction* operat ...

22 Logic programmable natural language processor of a knowledge-base management system

100%



M. Matsuo , K. Arima , F. Freiheit , K. Hubbard

Proceedings of the first international conference on Industrial and engineering applications of artificial intelligence and expert systems - Volume 2 June 1988

23 A framework for choosing a database query language

100%



Matthias Jarke , Yannis Vassiliou

ACM Computing Surveys (CSUR) September 1985
Volume 17 Issue 3

This paper presents a systematic approach to matching categories of query language interfaces with the requirements of certain user types. The method is based on a trend model of query language development on the dimensions of